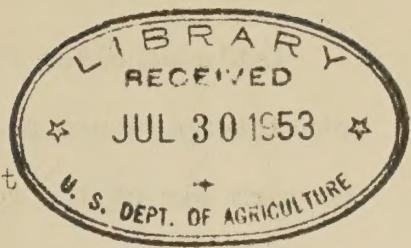


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ELECTRIC FAN PLANS

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Can you visualize air? It isn't easy, yet air is a substance - it has weight. A cubic foot of air weighs about 8/10 of a pound. In a room 10 x 15 x 8 feet there are 1200 cubic feet of air, weighing approximately 96 pounds. (And on a hot, humid summer day, many an uncomfortable person feels that the full 96 pounds is resting on his shoulders!) However, an electric fan of the proper size will move this mass of air easily. Following are suggestions about selecting and using electric fans so as to gain the greatest possible comfort from them in hot weather.

Naturally, fans must be of the right size and style to give efficient service, and this should be considered when buying them. Some are marked with the CFM (cubic feet per minute) rating; if not so marked, it can be determined by consulting the maker's catalogue. This indicates the number of cubic feet of air a fan will circulate every minute. In extremely warm climates it will be most comfortable if the air in a room is completely circulated at least every minute. In more moderate climates, a three-minute cycle is considered adequate.

Several small fans may be required to give complete air circulation throughout an entire house. One large fan of a certain type, or an attic fan, will completely ventilate a small house. In a specific area, however, one fan of average size (either oscillating or non-oscillating) will keep air moving constantly.

Let's consider first a room where there is cross ventilating: If actual temperature reduction is wanted, the fan should face an open window. The warm air of the room will be drawn in from the back of the fan and forced out through the window. This warm air will be replaced by cooler air drawn in from other windows or doors. In a room where no cross ventilation is possible, the window should be opened at both the top and the bottom. The cool air then will enter at the top of the window, while the warm air will be exhausted at the bottom. In the evening this method of exchanging inside and outside air will help to cool a room in short order, since the outside temperature usually drops rather rapidly after the sun has gone down.

On days when the outside air is warmer and more humid than the air indoors, circulation of air inside the room will help to make life more bearable. This can be accomplished by placing the fan on one side of the room with the flow of air directed against an opposite wall. As the air strikes the wall, it will break up into many smaller currents which will bounce back into the room, keeping all the air in motion. It will be more comfortable inside if outside doors and all windows are closed, and shades drawn to prevent the transfer of heat through the window-glass. The circulation of air by the electric fan will eliminate the stuffiness often noticed in closed rooms. An oscillating fan used in this situation will, of course, give greater air movement in the room.

There is an electric fan designed to meet every air circulation problem in the home. The desk-bracket fans are probably the most commonly used. These are mounted on a low base and may be placed on the floor, on a desk or table, or attached to the wall. These are available in a range of sizes, most commonly from 8 to 16 inches. Pedestal fans differ from desk-bracket fans only in the type of base on which they are mounted.

The base of the pedestal is weighted, like a floor lamp, to prevent tipping. Some are of fixed height, and some are adjustable to different heights. Floor fans are usually 10 or 12 inch fans mounted in frames resembling footstools or ottomans. The motor is in a position to circulate the air upward and outward, and these fans are particularly well adapted for ventilating and cooling living rooms. The style commonly classed as a kitchen ventilator fan, usually mounted in a panel to be placed inside the window frame, is suitable for use in other rooms, of course. This is well adapted for ventilating bathrooms, recreation rooms, basements or laundries. Such fans are also available in built-in models. Larger exhaust fans also are made in window models, and one of these will ventilate a small house or apartment. Attic fans can exhaust warm air from an entire house. These fans, however, may require special installation and possibly special wiring.

These suggestions for the use of various fan types should be regarded as a general guide, and each family should experiment to find out how to use electric fans for the greatest possible comfort.

